High-speed Switching Diode

Description

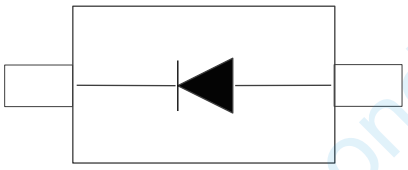
The OVW4148S1 is a high-speed switching diode fabricated in planar technology, and encapsulated in a small SOD123 plastic SMD package.

Features

- ✧ High switching speed: max. 4 ns
- ✧ Continuous reverse voltage: max. 75 V
- ✧ Repetitive peak reverse voltage: max. 100 V
- ✧ Repetitive peak forward current: max. 500 mA.

Applications

- ✧ High-speed switching in hybrid thick and thin-film circuits.



Circuit Diagram



SOD123

OVREG Semiconductor (xi'an) Co.,Ltd.

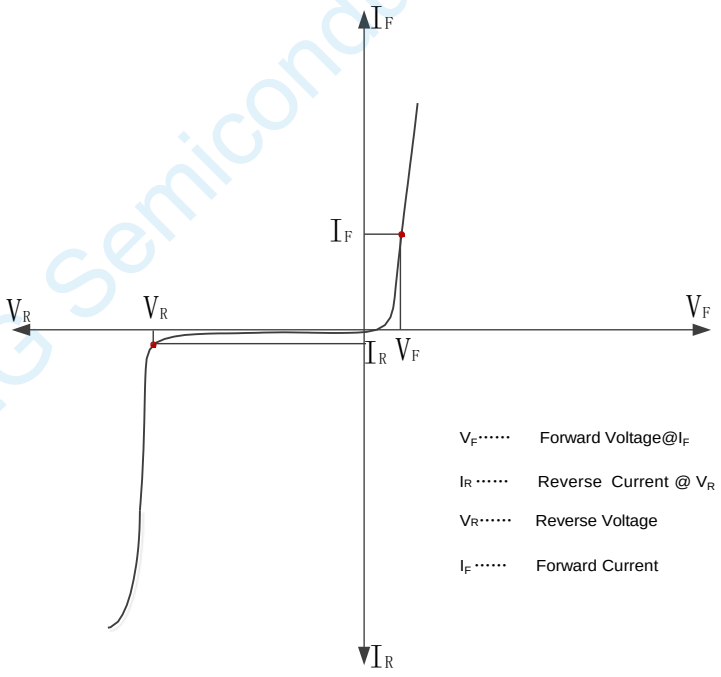
Absolute Maximum Rating（T_A = 25 °C, unless otherwisespecified）

Rating	Symbol	Value	Units
Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Repetitive Peak Forward Current	I_{FM}	500	mA
Average Rectified Output Current	I_O	150	mA
Junction temperature	Tj	150	℃
Storage temperature	T_{stg}	-55~+150	℃

Electrical Characteristics（T_A = 25 °C, unless otherwisespecified）

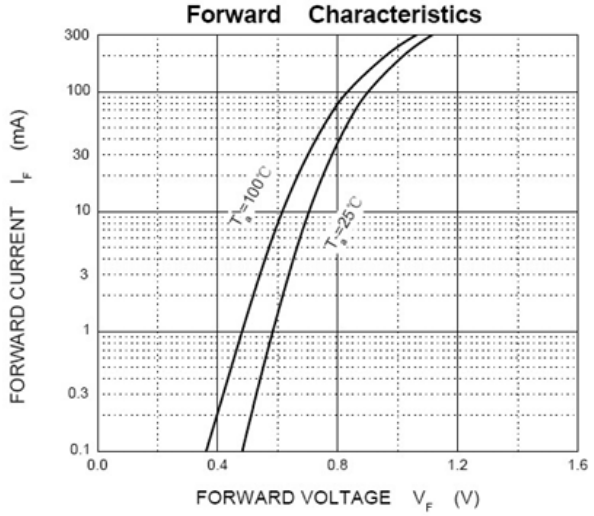
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Breakdown Voltage	V_{BR}	I_R=0.1mA	75			V
Reverse Current	I_{R1} I_{R2}	V_{R1} =20V V_{R2} =75V			0.025 5	uA
Forward Voltage	V_F	I_F=10mA I_F=100mA			1.00 1.25	V
Total Capacitance	C_T	V_R=0V,f=1MHz			4	pF
Reverse Recovery Time	t_{rr}	I_F = I_R = 10mAdc $I_{R(REC)}$ = 1.0 mAdc			4	ns

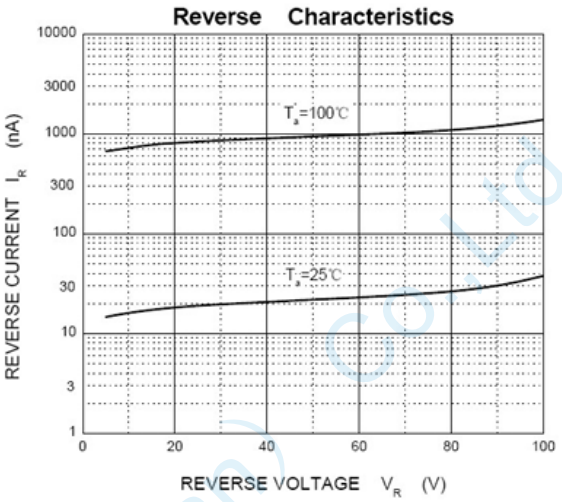
Electrical Parameters（T_A = 25 °C, unless otherwisespecified）

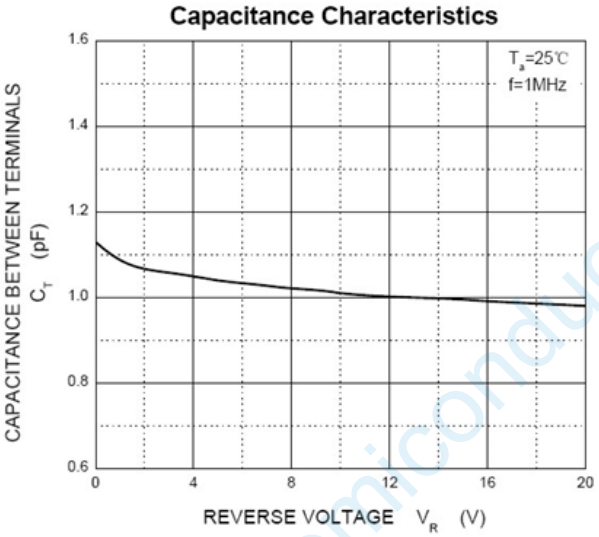


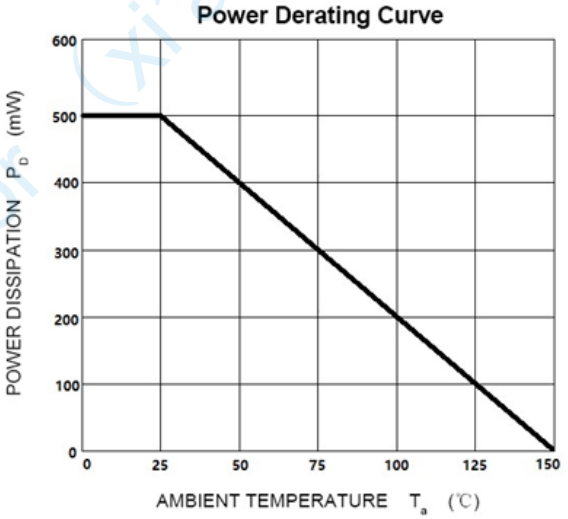
OVREG Semiconductor (xi'an) Co.,Ltd.

Typical Characteristics（T_A = 25 °C, unless otherwisespecified）



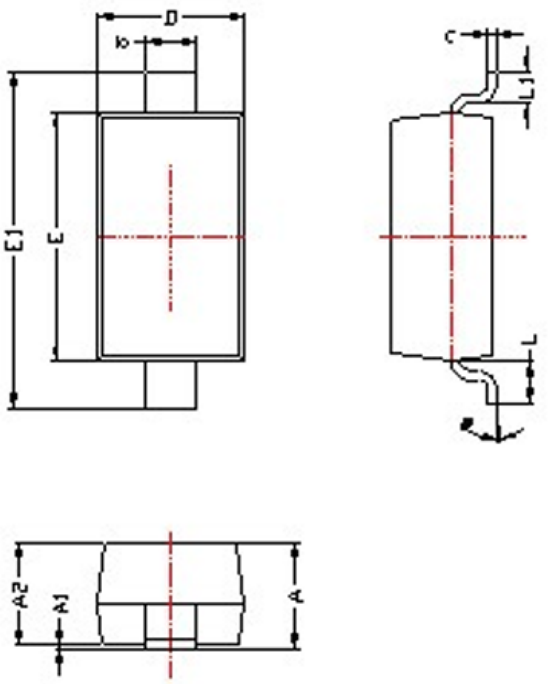






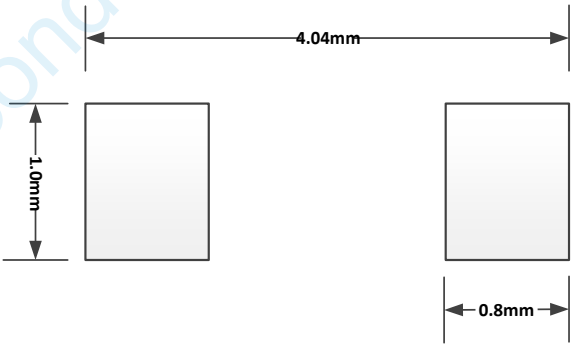
OVREG Semiconductor (xi'an) Co.,Ltd.

Package Information



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
θ	0°	8°

Recommend PCB Layout



Notes: This PCB Layout Is For Reference Purposes Only

Marking



Ordering Information

Part number	Material	Type	Reel size	MOQ	MOQ/internal box	MOQ/carton
OVW4148S1	GREEN	T/R	7 inch	3k/reel	10reel= 30k/box	4boxes=120k/carton

OVREG Semiconductor (xi'an) Co.,Ltd.